



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/887,655	06/22/2001	Avraham T. Freedman	12293-79	7163
50086 7590 07/11/2007 LAW OFFICE OF DAVID H. JUDSON 15950 DALLAS PARKWAY SUITE 225 DALLAS, TX 75248			EXAMINER JOO, JOSHUA	
			ART UNIT 2154	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/887,655	FREEDMAN, AVRAHAM T.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Joshua Joo	2154	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Detailed Action***

**Response to Communication dated 5/16/2007**

1. Claims 1-13 are presented for examination.

**Continued Examination Under 37 CFR 1.114**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/16/2007 has been entered.

**Response to Arguments**

3. Applicant's arguments filed 5/16/2007 have been fully considered but they are not persuasive.  
Applicant argued that:

4. (1) Mr. Freedman's declaration provides explicit proof that the software components were built, tested and worked; these averments constitute "a statement of facts demonstrating the correctness of the conclusion". (2) There is no requirement that a Rule 131 declaration include the actual software components that were written and tested at the time. Tab C shows that the software components identified by Mr. Freedman – and as described in Tab A – had been tested. (3) Tabs D and E were specific router configurations that were written and tested for the claimed apparatus.

5. In response, the MPEP 715.07 states,
  - a. A general allegation that the invention was completed prior to the date of the reference is not sufficient. *Ex parte Saunders*, 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference date, without a statement of facts demonstrating the correctness of this conclusion, is insufficient to satisfy 37

Art Unit: 2154

CFR 1.131. 37 CFR 1.131(b) requires that original exhibits of drawings or records, or photocopies thereof, accompany and form part of the affidavit or declaration or their absence satisfactorily explained.

- b. The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice “amounts essentially to mere pleading, unsupported by proof or a showing of facts” and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit “asserts that facts exist but does not tell what they are or when they occurred.”).

6. (1) Mr. Freedman’s declaration does not constitute “a statement of facts”, and Mr. Freedman’s confirmation that the apparatus actually existed and worked for its intended purpose is not sufficient because actual facts/evidence of a working invention is required to show support for Reduction to Practice (RTP). Applicant argued that Tabs C-E are used to corroborate statements in Mr. Freedman’s email. Tabs C-E *may* comprise of actual facts/evidence for the claimed invention, but the declaration does not clearly explain and point out the exactly what facts in Tabs C-E are relied upon by the Applicant to corroborate statements in Mr. Freedman’s email. Furthermore, the declaration does not clearly point out which parts, e.g. software components, of Mr. Freedman’s email is relied upon by the Applicant.

7. (2) While there is no requirement that Rule 131 declaration include actual software components, there is a requirement that the invention actually worked for its intended purpose. As previously explained, Mr. Freedman’s declaration that the apparatus actually existed and worked for its intended purpose is not sufficient. Actual and specific facts/evidence, for instance a code providing results, is required to show that the invention actually existed and worked. Regarding Tab C, there is no clear explanation of the data set (such as how the data set is produced, what the data set represents) or any specific correlation between Tab C and Mr. Freedman’s email. There is also no facts/evidence that the data set actually came from the invention other than Mr. Freedman’s statement that the data set was developed based on a Router Buddy test on December 1, 2000.

Art Unit: 2154

8. (3) The affidavit does not clearly explain or point out the exact facts in Tabs A-E the Applicant is relying on to show support for RTP, such as clearly pointing out and explaining the exact configurations that correspond to the claim limitations. In other words, there is no mapping between claim limitations and exact parts of Tabs A-E.

Accordingly, applicant has not established prior invention. The rejection is maintained.

### **Specification**

9. The abstract of the disclosure is objected to because the abstract exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

### **Claim Rejections - 35 USC § 101**

10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1-9, and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1 and 13, Applicant is seeking to patent an apparatus comprising only of codes. The apparatus may be interpreted as codes, i.e. software, per se, and therefore, the claimed invention of codes does not meet one of the four categories of invention and is not statutory. Specifically, codes are not a series of steps or acts, and thus is not a process. Codes are not a physical article or object and as such is not a machine or manufacture. Codes are not a combination of substances and therefore not a composition of matter.

### **Claim Rejections - 35 USC § 103**

Art Unit: 2154

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-3, 5, 6, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halme, US Patent #6,912,200 (Halme hereinafter), in view of Myers et al, US Publication #2003/0079005 (Myers hereinafter).

14. As per claims 1 and 13, Halme teaches substantially the invention as claimed including a apparatus and a router connectable to a plurality of destination networks through at least first and second transit networks, Halme's teachings comprising:

code executed in accordance with a set of one or more configurable parameters to initiate path quality measurements for each of a set of transit network/destination links (col. 5, lines 40-45; col. 6, lines 14-46. Measures each combination source and destination ISPs.),

code executed following the path quality measurements for evaluating whether a first transit network / destination network link is a candidate for rerouting to a second transit network / destination network link (col. 5, lines 20-25; col. 6, lines 14-21. Identify connections for routing traffic.); and

code responsive to satisfaction of a given path evaluation criteria and being executed to establish a communication with the router to facilitate a reroute from the first to the second transit network / destination network link (col. 6, lines 14-21. Change source and destination ISPs for routing traffic for connections with best through and minimal change.).

15. Halme teaches substantial features of the claimed invention including an apparatus for changing routing configuration with a plurality of ISPs, and continuously monitoring the network when there is traffic over the network and sending probes to monitor the network when routes are inactive (col. 5, lines

Art Unit: 2154

40-52). However, Halme does not explicitly teach that the apparatus is for use with a router, performing periodic path quality measurements, configuring an overriding test route identifying each transit network/destination network link is configured into the router at the time of the path quality measurement and then withdrawn after the measurement.

Myers teaches of nodes communicating with routers (paragraphs 0011-0013); performing periodic path quality measurements (paragraphs 0093); configuring routes identifying links to reach nodes of different networks at the time of time of the path quality measurement, and then withdrawing the routes after the measurement (paragraphs 0093, 0095-0097).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Halme with the teachings of Myers to perform periodic path quality measurements; configure routes identifying links to reach nodes of different networks at the time of time of the path quality measurement, and withdraw the routes after the measurement. The motivation for the suggested modification is that both teachings similarly deal with measuring the performance of links between networks and providing the connection with the best performance. Furthermore, Myers' teachings would enhance Halme's system by providing data that would ensure that the connections with the best performance may be consistently used for routing and implementing links that will provide best network performance as taught by Myers (paragraphs 0016; 0093).

17. As per claim 10, Halme teaches substantially the invention as claimed including a method of controlling a router connectable to a plurality of destination autonomous systems through at least first and second transit autonomous systems, comprising:

conducting local traffic analysis of outgoing packets transmitted to a set of IP addresses in the destination autonomous systems (col. 5, lines 40-45; col. 6, lines 22-46. Measures traffic transmitted to destination ISPs.);

Art Unit: 2154

based on the collected data during the local traffic analysis, selecting a best transit autonomous system for a given autonomous system given the then-existing connectivity conditions (col. 6, lines 14-

21. Selects source and destination ISP based on measurements.); and

automatically logging into the router and entering a new configuration to cause the router to reevaluate all routes heard from the selected transit autonomous system according to the new configuration (col. 3, lines 53-55; col. 6, lines 14-21; claims 1 and 2. Select source ISP and change connections.).

18. Halme teaches substantial features of the claimed invention including continuously monitoring the network when there is traffic over the network and sending probes to monitor the network when routes are inactive (col. 5, lines 40-52). However, Halme does not teach of periodically conducting traffic analysis.

Myers teaches of periodically measuring the links between networks (paragraph 0093).

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Halme with the teachings of Myers to periodically measuring links between networks. The motivation for the suggested modification is that both teachings similarly deal with measuring the performance of links between networks and providing the connection with the best performance, and Myers's teachings would enhance Halme's system by providing data that would ensure that the connections with the best performance may be consistently used for routing (paragraphs 0016; 0093).

20. As per claim 2, Halme teaches of changing configuration by gateway nodes. However, Halme does not specifically teach the apparatus as described in claim 1 further including an interface for enabling setting of the one or more configurable parameters.



Art Unit: 2154

Myers teaches of changing network connection setting among nodes and routers through BGP (paragraphs 0012-0013; 0093).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the suggested system of Halme and Myers with the teachings of Myer to provide an interface to routers to set configurable parameters, which would implement a protocol for communicating with routers in the network, and allowing exchanges of routing data between routers.

22. As per claim 3, Halme teaches the apparatus as described in claim 2, wherein the configurable parameters include a probe type (col. 5, lines 46-52. Probe packets.).

23. As per claim 5, Halme teaches the apparatus as described in claim 2, wherein the configurable parameters include a list, identifying destination networks links to evaluated (col. 14-26. Measure destination IP connections.).

24. As per claim 6, Halme teaches the apparatus as described in claim 2, wherein the configurable parameters include a given IP address within a given destination network (col. 6, lines 1-10. IP address of destination ISP.).

25. As per claim 12, Halme teaches the method as described in claim 10, wherein the best transit autonomous system for a given destination autonomous system is selected according to a given path evaluation algorithm (col. 6, lines 14-21. Best throughput connection is selected.).

26. Claims 4, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halme and Myers, in view of Klinker et al, US Publication #2002/0145981 (Klinker hereinafter).

Art Unit: 2154

27. As per claims 4 and 11, Halme teaches of recording the round trip times between source and destinations. However, Halme does not specifically teach the apparatus as described in claim 3, wherein the probe type is an ICMP packet.

Klinker teaches of using an ICMP packet to measure the network (paragraph 0064-0065).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Halme and Myers with the teachings of Klinker to use an ICMP packet to measure the network. The motivation for the suggested modification is that all three teachings deal with measuring the network to make routing decisions, and Klinker's teachings would enhance the system by providing additional measuring parameters for assessment of the network to make routing changes, such as recording the round trip time to a specific destination (paragraph 0065).

29. As per claim 8, Halme does not specifically teach the apparatus as described in claim 1 wherein the test route is configured into the router by establishing an internal BGP (iBGP) peering session over which routing update information identifying the test route is passed.

Klinker teaches of communicating new routing tables to a router using an iBGP session (paragraph 0126).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suggested system of Halme and Myers with the teachings of Klinker to use an iBGP session to communicate to the router and performing routing update. The motivation for the suggested modification is that all three teachings deal with measuring the network to make routing decisions, and Klinker's teachings would provide a protocol for the routers to communicate changes with each other within a autonomous network (paragraph 0126).

Art Unit: 2154

31. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halme and Myers, in view of Lenander, US Patent #6,401,129 (Lenander hereinafter).

32. As per claim 7, Halme teaches the invention of claim 1, where the apparatus has code responsive to satisfaction of the given path evaluation criteria (col. 6, lines 14-18. Select connection.). However, Halme does not specifically teach the apparatus being executed to output a recommendation illustrating a reroute from the first to the second transit network/destination network link.

Lenander teaches of providing information recommending change of route to nodes (col. 7, lines 15-19).

33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the system of Halme and Myers with the teachings of Lenander to send information recommending a change of route to nodes. The motivation for the suggested modification is that Lenander's teachings would improve the system by providing suggestions and input from other apparatus' for additional consideration to effect changes to the network.

34. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halme and Myers, in view of Shafer, US Publication #2002/0191619 (Shafer hereinafter).

35. As per claim 9, Halme does not specifically teach the apparatus as described in claim 1 wherein the test route is configured into the router by establishing a secure connection between the apparatus and a configuration program executing in the router.

Shafer teaches of establishing a secure connection with a router and submitting configuration requests to change router configurations (paragraphs 0006-0007).

Art Unit: 2154

36. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine system of Halme and Myers with the teachings of Shafter to establish a secure connection with the router, and have a configuration program executing in the router. The motivation for the suggested combination is that Shafter's teachings would provide secure access to the router, and allow the router to accept and change configurations.

### **Conclusion**

37. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.

39. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

40. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/887,655

Page 12

Art Unit: 2154

June 26, 2007

JJ



**NATHAN FLYNN**  
**SUPERVISORY PATENT EXAMINER**